

SOLUTION DATA SHEET

Plasticizer-free Pearlcoat™ for Enhanced Durability and Aesthetics



Markets	Inflatables, coated fabrics, car seats, synthetic leather and flooring
Polymer	Pearlcoat 161K thermoplastic polyurethane (TPU)
Key Benefits	<ul style="list-style-type: none"> • Soft, halogen- and plasticizer-free • FDA compliant, very good haptics • Superior scratch resistance

Converting a polymer melt into a sheet, film or coated fabric means you need a material that is durable, flexible and versatile. Lubrizol Engineering Polymers calendaring product portfolio offers polyester and polyether grades that range in hardness from 75 to 95 Shore A and offer exceptional chemical resistance. If you need to make the move to soft calendarable TPU with enhanced durability and high-class finish in

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your current PVC applications, try **Pearlcoat 161K** polymer with a 76 Shore A hardness. This is a polyether-based TPU that complements PVC applications and has a very good hydrolysis resistance.

Pearlcoat™ 161K has the right property profile and versatility to meet your new requirements for soft and plasticizer-free solutions. It exhibits a great combination of performance and processability:

	PVC	TPU
Tensile Strength (MPa)	>15	>25
Impact Resistance/Flexibility	Low/ Medium	High
Calendaring/Injection molding	Yes	Yes
Additives	Plasticizer	Plasticizer-free & Transparent
Halogens	Yes	No

Summary of benefits obtained by using aliphatic TPU:

- **A complement to plasticized PVC:**
 - Plasticizer free
 - Halogen free
- **Long-term performance:**
 - Superior abrasion/scratch resistance
- **High-class finish:**
 - Non-sticky
 - Good haptics
 - Versatile in appearance
- **Cost-effective manufacturing:**
 - 100% reused 3 times
 - Processability on standard PVC calendaring machines



Application examples: Coated fabrics (bags, accessories), inflatables (boat, ball, life jackets), automotive (seat covers in luxury models), flooring, etc.

For more information, please visit our web: www.lubrizol.com/Engineered-Polymers

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